Washington County MARYLAND

DEPARTMENT OF PLANNING & ZONING
COMPREHENSIVE PLANNING | LAND PRESERVATION | FOREST CONSERVATION | GIS

# AGENDA

## WASHINGTON COUNTY PLANNING COMMISSION
## WORKSHOP MEETING
**March 15, 2021, 6:30 PM**
**VIRTUAL MEETING ONLY**

**Access to County buildings is currently restricted due to the Governor's State of Emergency declaration due to the COVID-19 pandemic. Therefore, the general public may not attend the physical meeting but will have access to the meeting through the County's Facebook live stream or the Washington County Commissioners' YouTube channel.**

***CALL TO ORDER AND ROLL CALL***

***OTHER BUSINESS***

1. Draft Solid Waste Management and Recycling Plan – Planner: Travis Allen *
2. Solar Energy Generating Systems – Planner: Jill Baker *

***ADJOURNMENT***

***UPCOMING MEETINGS***

1. Monday, April 5, 2021, 7:00 p.m. – Washington County Planning Commission regular meeting

**attachments*

***The Planning Commission reserves the right to vary the order in which the cases are called. Individuals requiring special accommodations are requested to contact the Washington County Planning Department at 240-313-2430 to make arrangements no later than 10 working days prior to the meeting. Notice is given that the Planning Commission agenda may be amended at any time up to and including the Planning Commission meeting.***

Washington County
MARYLAND

# Solid Waste and Recycling Plan
## 10-Year Update

Washington County, Maryland
March 15, 2021

# Purpose

- SW&R Plan outlines Washington County's existing and future plans for solid waste management in compliance with State and Federal regulations.
- Serve as a link to inform local citizens about the County's plans for an essential public service.
- Review for conformance with LU policies established by Comp Plan

# Partners

- The Department of SW&R & the EMAC provided input on the development of this Plan.

# Chapter Outline

- Required Content: COMAR 26.03.03 (MDE)
- Chapter 1
  - Federal, state and local legal and institutional framework governing SWM in Washington County
  - Establishes the County's goals and objectives
- Chapter 2
  - Demographic trends affecting County's waste generation
  - Zoning regulations pertaining to solid waste facilities
  - Intent of the County's current Comprehensive Plan

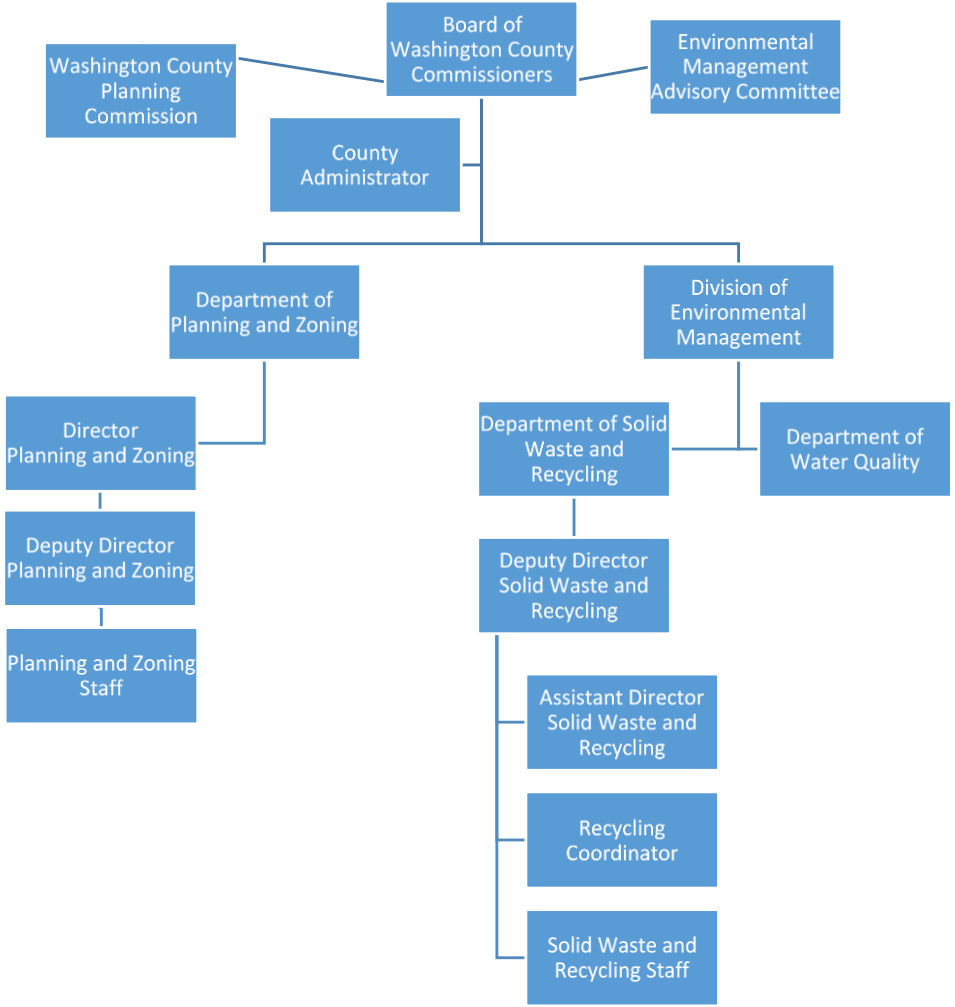
# Chapter Outline

- Chapter 3
  - Current SWM system operating in the County
  - SW trends and projections
- Chapter 4
  - Assessment of the current SWM system
  - Alternatives to current collection, processing and disposal technologies
- Chapter 5
  - Plan of Action for next 10 years

# Chapter 1

## Legal and Institutional Framework

# Washington County SWM Hierarchy



# Solid Waste Enterprise Fund

- Enterprise Fund Accounting
  - Revenues and expenditures of the service are segregated into a separate fund with its own financial statements, rather than commingled with the revenues and expenses of all other governmental activities.

# Funding

**Expenditures**

- Operation, maintenance, replacement, closure and post-closure, monitoring and maintenance of solid waste management facilities
- Education
- Permitting
- Licensing
- Recycling and recovery programs
- Transfer
- Solid waste disposal
- Financial assurances

# Revenues

- Tipping fees and other special generation fees
- Sale of assets and materials
- Interest
- Permits
- Issuance of bonds
- License fees
- Waste Diversion Programs (Recycling, Composting, Energy Recovery)
- Grants and loans

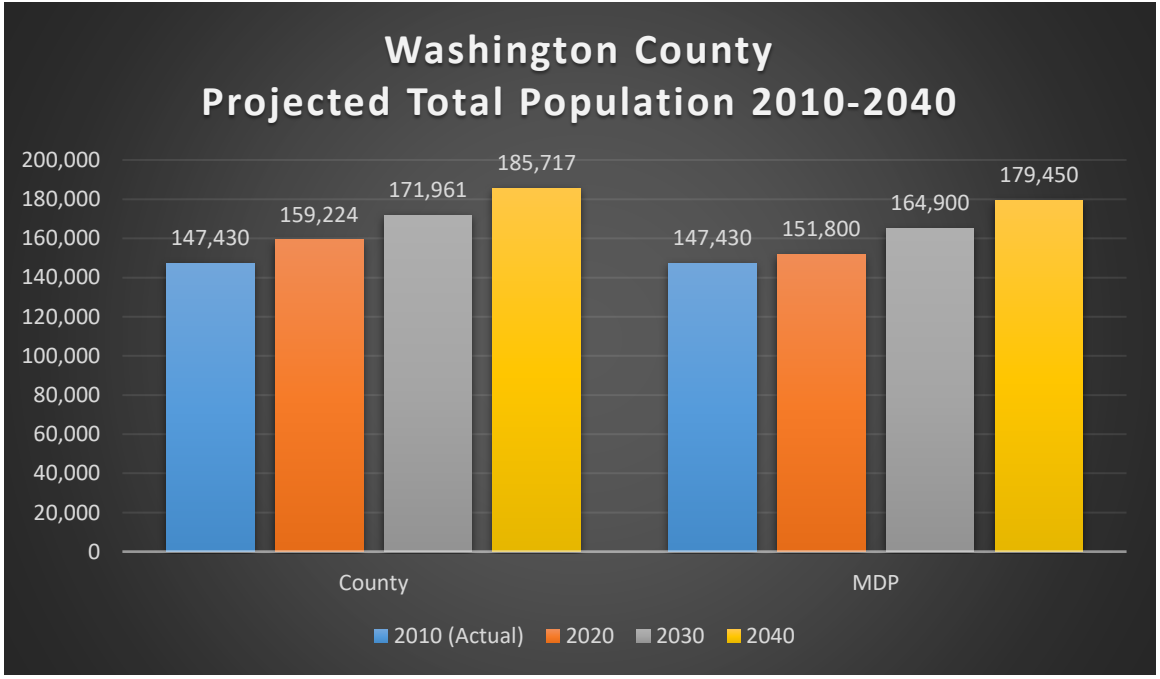
# Waste Management Hierarchy

# Chapter 2

## Demographic Trends, Zoning

# Trends and Projections

- Population and Industry/Employment trends affect waste generation rates
- Population forecasts (State and Local) have exceeded actual County population growth



- Only permitted in RB District through establishment of floating zone

**Permitted Zoning Districts for Sanitary Landfills**

| LAND USES | A(R) | EC | P | RV | RB | IM | Intensity of Use |
|---|---|---|---|---|---|---|---|
| Sanitary landfills, provided such use shall be two (2) times the distance specified in Section 4.9. | N | N | N | N | P | N | N/A |

## Section 4.9 Distance Requirements:

*"Any uses or buildings subject to compliance with this section shall be located at least two hundred (200) feet from any lot line in a RT, RS, RU, RM or RV District or any lot occupied by a dwelling, school, church, or institution for human care not located on the same lot as the said use or buildings, or any lot which is part of a duly recorded subdivision."*

# Chapter 3

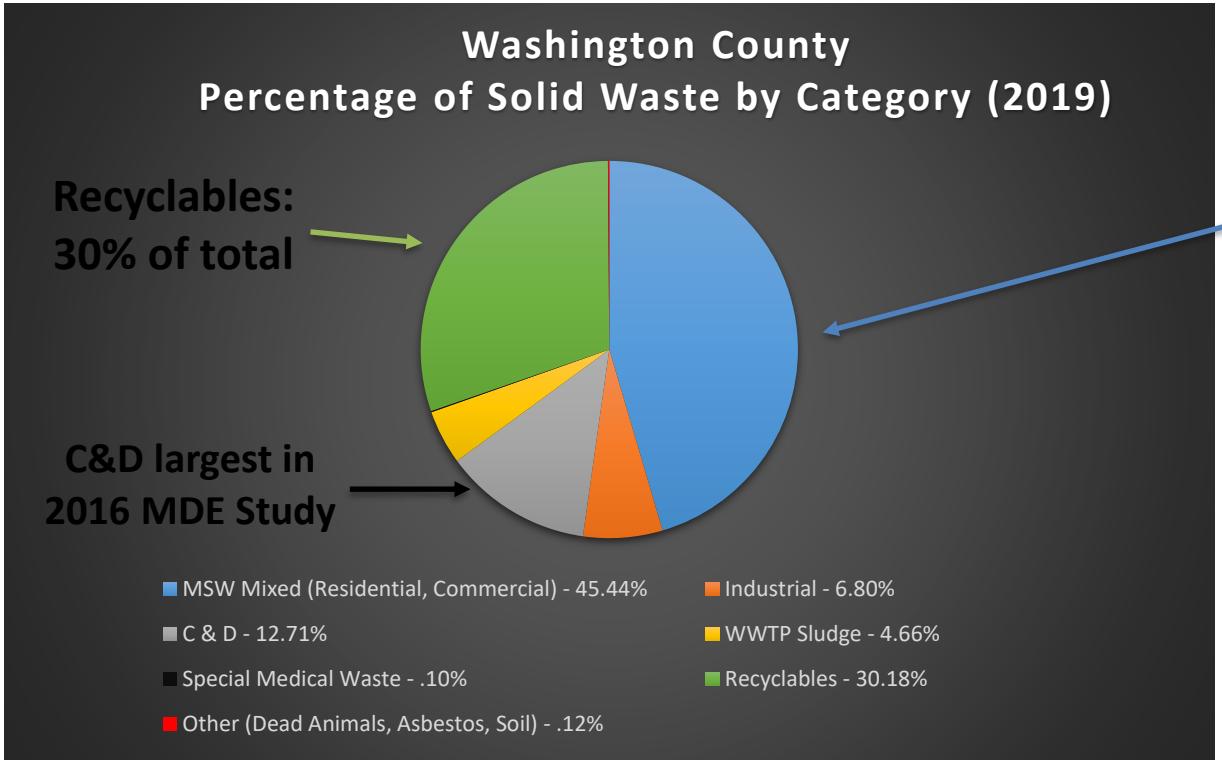
## Characterization of Existing Waste Streams, Existing SWM Facilities

# Waste Stream Characterization

## COMAR Required Solid Waste Stream Categories

1) Residential (household, domestic)
2) Commercial
3) Industrial (non-hazardous) solids, liquids, and sludges
4) Institutional (schools, hospitals, government buildings)
5) Land clearing and demolition debris (rubble)
6) Controlled hazardous substances
7) Dead animals
8) Bulky or special wastes (automobiles, large appliances, etc.)
9) Scrap tires
10) Wastewater treatment plant sludge
11) Septage
12) Other

# Waste Stream Characterization




- MSW Mixed:
  - 60% Residential
  - 40% Commercial

# Recycling

- Average Recycling Rate 2010-2018: 50.8% (35% mandatory)
- Paper most common recyclable
- Recycling rates have dropped due to international markets

| | MRA | | Maryland Recycling Act (MRA) Materials | | | | | | | Non-MRA | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Rate (%) | WDR (%) | Compost | Glass | Metals | Paper | Plastic | Misc. | Subtotal | Recyclables | Recycling |
| 2010 | 42.25 | 43.25 | 1,095 | 1,262 | 1,261 | 53,579 | 2,889 | 2,864 | 62,950 | 37,810 | 100,760 |
| 2011 | 46.81 | 47.81 | 1,676 | 1,241 | 1,120 | 72,547 | 3,141 | 2,381 | 82,106 | 48,028 | 130,134 |
| 2012 | 55.11 | 55.11 | 1,993 | 1,024 | 1,330 | 69,742 | 1,441 | 1,747 | 77,277 | 53,881 | 131,158 |
| 2013 | 61.89 | 61.89 | 2,850 | 2,507 | 980 | 72,849 | 1,467 | 1,779 | 82,432 | 19,958 | 102,390 |
| 2014 | 60.59 | 60.59 | 1,458 | 3,163 | 1,049 | 75,917 | 1,512 | 1,923 | 85,022 | 29,303 | 114,325 |
| 2015 | 53.2 | 53.2 | 2,848 | 1,699 | 763 | 67,670 | 864 | 1,345 | 75,189 | 31,056 | 106,245 |
| 2016 | 52.51 | 52.51 | 2,309 | 983 | 602 | 64,237 | 2,577 | 240 | 70,948 | 27,254 | 98,202 |
| 2017 | 49.54 | 49.54 | 1,285 | 673 | 13,897 | 52,924 | 717 | 1,486 | 70,982 | 26,239 | 97,221 |
| 2018 | 35.33 | 35.33 | 2,150 | 1,006 | 402 | 39,399 | 687 | 2,340 | 45,984 | 25,843 | 71,827 |

# Waste Stream Projections

Preliminary

| | Actual Tons | Projections | | | | | |
|---|---|---|---|---|---|---|---|
| **Waste Category** | **2019** | **2021** | **2023** | **2025** | **2027** | **2029** | **2031** |
| MSW Residential | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MSW Commercial | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MSW Mixed | 86,215 | 88,197 | 90,225 | 92,300 | 94,422 | 96,593 | 98,814 |
| Industrial (solids, liquid, etc.) | 12,894 | 13,280 | 13,585 | 13,897 | 14,216 | 14,542 | 14,876 |
| Institutional (schools, hospitals etc.) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Demolition Debris (C&D) | 24,122 | 24,676 | 25,243 | 25,823 | 26,416 | 27,023 | 27,644 |
| Land Clearing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Controlled Hazardous Substance (CHS) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dead Animals | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Bulky or Special Waste | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Tires | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wastewater Treatment Plant Sludges | 8,846 | 9,049 | 9,257 | 9,469 | 9,686 | 9,908 | 10,135 |
| Special Medical Waste | 183.43 | 187.65 | 191.97 | 196.39 | 200.91 | 205.53 | 210.26 |
| Textiles | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Asbestos | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| Soil | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| **Total MRA & NON MRA Waste** | **132,479** | **95,501** | **97,697** | **99,944** | **102,243** | **104,594** | **106,999** |
| **Total MRA and NON MRA Recycling** | **57,265** | **98,606** | **100,874** | **103,194** | **105,567** | **107,995** | **110,479** |
| **Total Waste Generated** | **189,744** | **194,108** | **198,572** | **203,139** | **207,811** | **212,590** | **217,479** |

- **Methodology**

2019 Tons multiplied by historic average rate of population growth

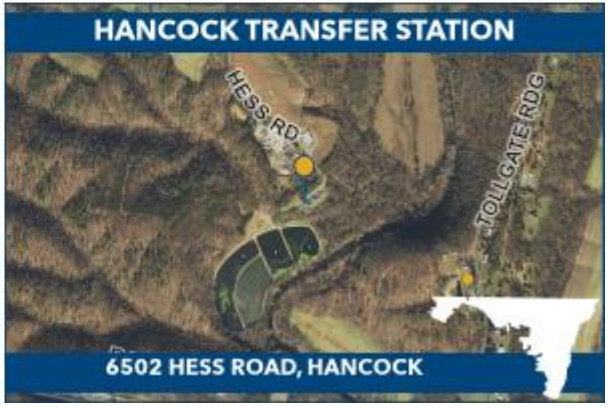
# Solid Waste Facilities




- Includes sanitary and rubble landfills, recycling, composting, transfer stations
- Estimated Remaining Service Life: 50 years

# Transfer Stations




- Residential use only
- Permit required
- Accept trash, recyclables, cardboard, used oil and antifreeze.

# Closed or Inactive Facilities



- Multiple closed or inactive landfill sites have been repurposed for Solar Energy Generating Systems

# Chapter 4

## Assessment of Alternatives to Current SWM System

## Free Enterprise System (Subscription)

- Existing collection system in County (unincorporated areas)
- Waste collected by private haulers who contract with individual clients (homeowners, HOA, apartment complex, businesses)
- Haulers must secure a license from the County and operate according to the requirements of the Solid Waste Collection Licensing Ordinance.

➢ Advantages - meet specialized needs of individual clients; minimal County involvement; encourage private enterprise

➢ Disadvantages – less cost effective (overlapping routes by haulers); less control over waste flow in and out of County

## Contract Collection (Franchise)

- County divided into collection districts with approximately equal residential populations. Municipalities could either consist of a separate collection district or could be included within an adjacent unincorporated area. One hauler is generally awarded the collection contract for each district based on competitive bidding.

➢ Advantages - Cost effective (eliminate route redundancy); new regulations included in contracts, greater control waste flow

➢ Disadvantages – Startup hurdles (fiscal, staffing); may reduce competition

## Hauler Licensing

- Includes elements of both franchise and contract collection systems
- Allows private haulers to remain in business if they meet regulatory conditions imposed by the County
- County Licensing Ordinance in place since 1995

➢ Advantages - promotes competition that may reduce consumer collection costs; greater control of waste flow than franchise system, licensing requirements allow for new regulation

➢ Disadvantages – overlapping routes still likely, regulation avoidance could create alternate disposal avenues outside the County's systems to avoid the licensing requirements

## Government Collection (Public Operation)

- Collection and hauling services would be provided by County employees using equipment it owns
- Financing either through taxation or by direct billing reflecting true program costs

➢ Advantages - greatest control over waste flow allows for increased source reduction, recycling, and standard quality of service; no profit requirement (only cover costs)

➢ Disadvantages – eliminates competition; may be more expensive than private systems; large capital expenditures to implement/maintain system

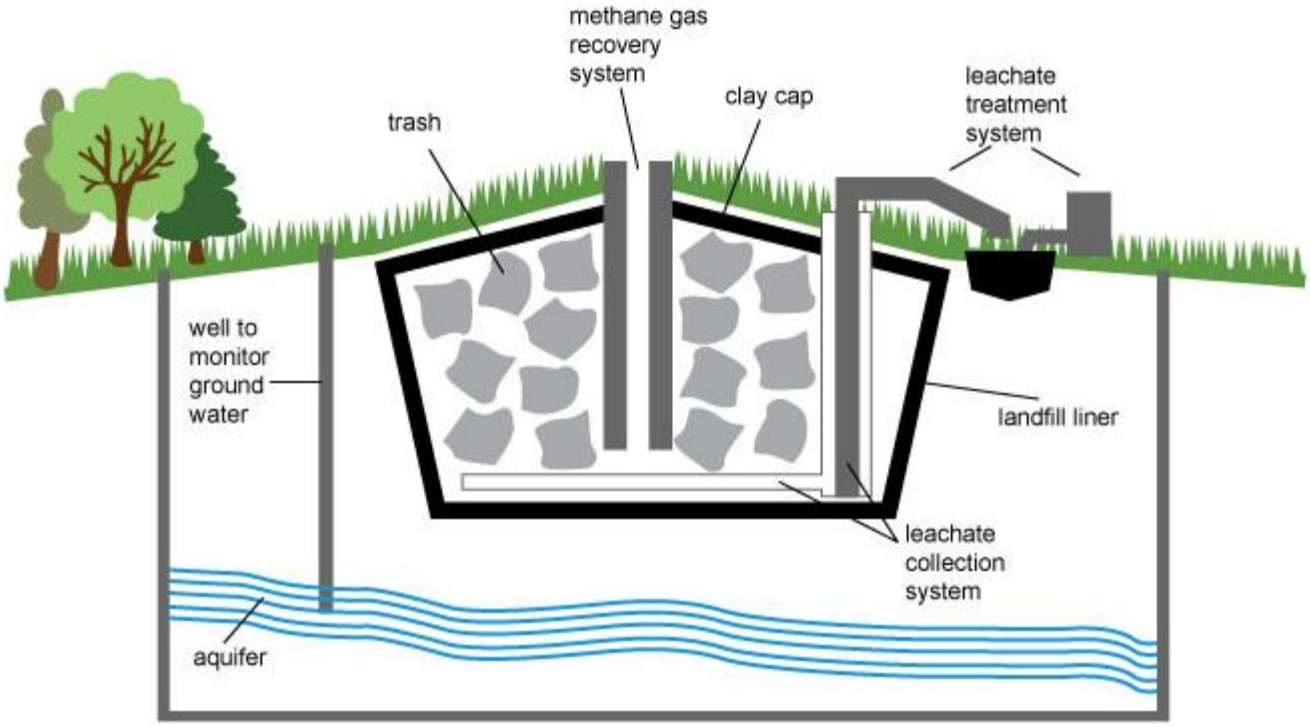
# "Pay-As-You-Throw" (Variable v. Base Rates)

- Base Rate - haulers charge a flat monthly fee for waste collection regardless of how much, or how little, trash they generate.
- Minimal economic incentive for residents to reduce waste disposal
- Variable Rate - consumers charged based on amount of refuse placed at curb each week
- As the amount of waste disposed increases or decreases, the cost to the individual either increases or decreases.
- Waste disposal services treated like other utilities (households pay a for amount of service they use)

# "Pay-As-You-Throw" (Variable v. Base Rates)

- Advantages - significant increases in recycling and reductions in waste disposal (economic incentives); generate revenues needed to cover increasing solid waste costs; resident control over bills; equity (those who dispose more, pay more & vice versa)
- Disadvantages – hurdles associated with developing, implementing and maintaining a complex administrative system

# Landfill Gas Capture through Anaerobic Digestion Processes




**Advantages**

- Reduced leachate disposal costs
- Prolong landfill life through increased waste decomposition and settlement
- Increased methane production over shorter time periods making methane recovery economical

# Repurposing Inactive or Closed Landfills

SEGS at Rubble Reclamation Landfill, Kemps Mill Road


Landfill conversion to Parks and Open Space uses Pinesburg Softball Complex

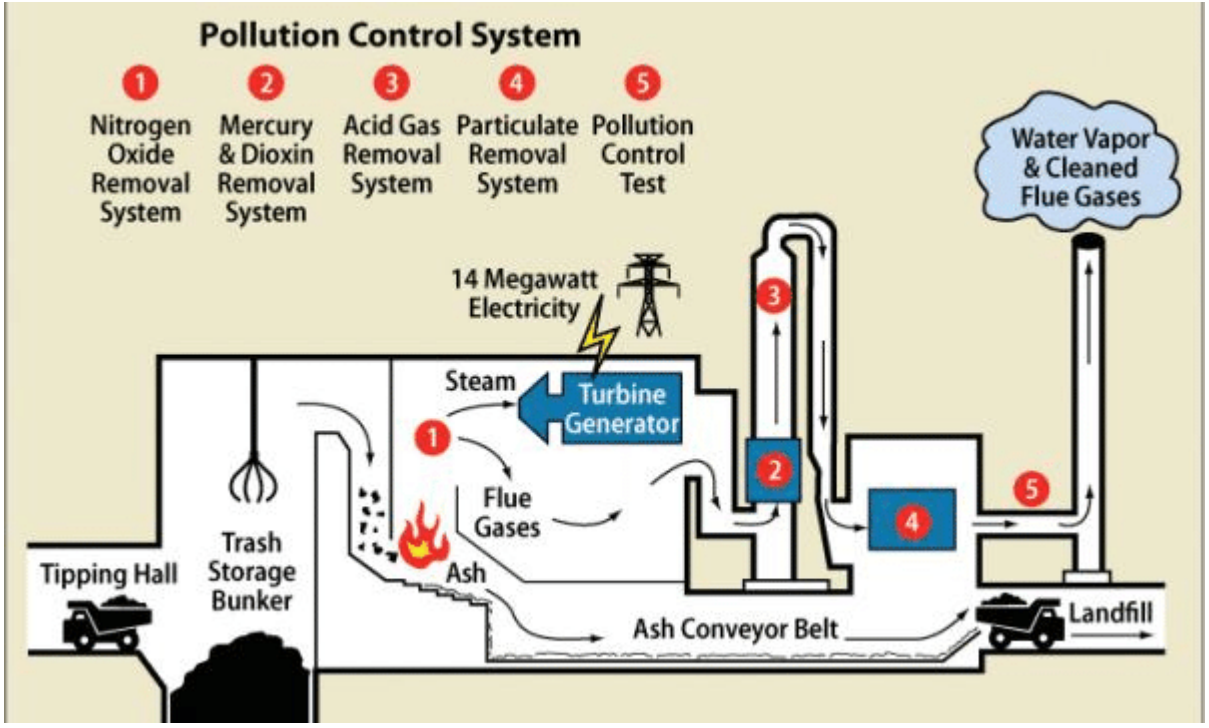
Wind turbines on closed landfills – example image

# Municipal Solid Waste Composting

**Key Facts**

- 30% of all municipal solid waste generated in the U.S. compostable
- 18% of total waste at 40W Landfill organic
- 11.3% food waste
- Significant hurdles to expand County Yard Waste Composting Program
  - High costs, product odors, technology issues, product quality and lack of markets for end products

# Waste-To-Energy Systems




**Advantages**

- After combustion, the volume of material requiring land disposal is reduced by 85 to 90 percent

**Disadvantages**

- Public opposition due to air pollution and ash disposal concerns
- High costs due to amount of time required for siting, permitting, and construction
- Net energy producers, but not as much as traditional power plant

# Chapter 5

## 10-Year Action Plan

# Potential Action Items

## Environmental Management Advisory Committee Recommendations

- Expand Washington County's current recycling program
  - Additional sorting facility
  - Explore new markets/materials
    - Use of recycled materials in County public works or engineering projects
- Expand Washington County's current composting program
  - Research permitting requirements, facility upgrades, collection system, interest among local municipalities, citizen education to use system
  - Monitor development of markets for composable materials in state/region
- Explore Pelletization options
  - Ex - Waste material converted into fuel pellets that would serve as an 8,000 BTU coal substitute

# Potential Action Items

## Additional Action Items Being Considered

- Anaerobic Digestion and landfill gas capture
- Other Waste-to-Energy alternatives that may working in combination with Pelletization, Gasification, Anerobic Digestion and Composting

# Next Steps

1. Further Input and Review from PC, SW Department and EMAC on draft plan
2. 2nd Meeting with PC will occur in April following incorporation of comments from above groups
3. Draft to be sent to MDE for review and comment in April/May

# Solar Energy Generating Systems (SEGS)
# Current Regulations

Use Chart:

| | AR | EC | P | IM | IR | IG | PI | AP |
|---|---|---|---|---|---|---|---|---|
| Solar Energy Generating Systems, in accordance with Section 4.26 | SE | SE | SE | SE | SE | SE | SE | SE |

Setback Chart:

| | Front | Side | Rear |
|---|---|---|---|
| AR | 50 | 50 | 50 |
| EC | 50 | 50 | 50 |
| P | 50 | 50 | 50 |
| IM | n/a | n/a | n/a |
| IR | 50 | 25[1] | 25[1] |
| IG | 50 | 25[1] | 25[1] |
| PI | 50/150[2] | 150/75[3] | 150/75[3] |
| AP | 150/50[2] | 150/75[3] | 150/75[3] |

[1]Where the proposed uses or buildings abut a lot in a RR, RT, RS, RU, or RM District, any residential use in a mixed-use development, or any lot occupied by a dwelling, school, place of worship or institution for human care not located on the same lot as the said use or building, or any lot which is part of a duly recorded residential subdivision, the side and rear setbacks shall be one hundred (100) feet.

[2]A front yard adjacent to an expressway or primary highway as shown on the Washington County Highway Plan shall be one hundred fifty (150) feet. Front yards on other County or municipal streets or interior roads within an industrial park shall be fifty (50) feet.

[3]Adjoining a residential district, one hundred fifty (150) feet or seventy-five (75) feet where proper screening as determined by the Planning Commission along the property line is provided. Adjoining a business or industrial district, seventy-five (75) feet.

Definitions:

**Solar Array:**

A ground mounted solar collection system consisting of a linked series of photovoltaic modules.

**Solar Collection System:**

A panel or other solar energy device, the primary purpose of which is to provide for the collection, inversion, storage, and distribution of solar energy for electricity generation, space heating, space cooling or water heating.

**Solar Energy Generating System (SEGS):**

A grid-tie solar facility consisting of multiple solar arrays whose primary purpose is to generate electricity for distribution and/or sale into the public utility grid and not for onsite consumption.

Specific Regulations for Solar Energy Generating Systems:

*Section 4.26 Solar Energy Generating Systems*

The purpose of this section is to establish regulations to facilitate the installation and construction of Solar Energy Generating Systems as defined in Section 28A (hereinafter "SEGS") for landowners, subject to reasonable restrictions which will preserve the public health and safety.

SEGS shall be permitted as a land use as specified in Sections 3.3 and 21.42 of this ordinance. However, SEGS shall be prohibited as a use in defined Priority Preservation Areas, Rural Legacy Areas, and Antietam Overlay zones.

A. Design Standards

The following standards shall apply to the development of Solar Energy Generating Systems:

1. A property owner who has installed or intends to install a solar energy generation system shall be responsible for negotiating with other property owners in the vicinity for any necessary solar easement and shall record the easement with the Clerk of the Court. A property owner who fails to secure an easement for the receipt of solar energy acts at his own peril and has no recourse against the person allowing or causing the obstruction of the owner's receipt of solar energy. Other property owners in the vicinity may obstruct solar energy collection systems unless a valid easement has been secured.

2. Solar Energy Generating Systems shall adhere to the setback, height, and coverage requirements of the district in which they are located. All above ground facilities associated with such generating system (excluding perimeter security fencing) shall be considered a structure for the purposes of determining required setbacks.

3. Minimum Lot Size. No such generating system shall be erected on any lot less than twenty acres in size.

4. Buffer Yards. The area designated as a buffer yard may include any required side, rear, or front yards. A 25-foot wide buffer yard shall be required where the adjoining lot is either zoned for or contains dwellings, hospitals, nursing homes, schools, or other institutions for human care. The buffer area shall be measured between the lot line and any area of the lot proposed for use or development and shall be screened with vegetative plantings. The plantings shall be spaced so as to create an opaque screen between the adjoining land uses at a height of no less than 10 feet at maturity. The Planning Commission may waive and/or modify this requirement if the strict application of the provisions of this section reduces

the usable area of a lot due to lot configuration or size to a point which would preclude a reasonable use of the lot.

5. Access. All ground-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access. A security fence (height and material to be established through the special use permit process) shall be placed around the perimeter of the solar energy generating system and electrical equipment shall be locked. Knox boxes and keys shall be provided at locked entrances for emergency personnel access.

6. Electrical Wires. All electrical wires associated with a Solar Energy Generating System, other than wires necessary to connect the solar generator to the off-site distribution system, the wiring to the disconnect junction box, and the grounding wires shall be located underground.

7. Lighting. All structure mounted and parking lot lighting shall be constructed so that light and glare are diffused toward the ground.

8. Appearance, Color and Finish - The solar energy collection structures shall remain painted or finished the color of finish that was originally applied by the manufacturer.

9. Signs. Signage shall comply with Article 22 Division II of this Ordinance. In addition, warning signage shall be placed on electrical equipment and generating system entrances. All sites shall be identified by means of a sign no larger than two (2) square feet in size affixed to the fence identifying the entity using the site and shall provide the telephone number of a contact person in the event of an emergency.

10. Noise. Audible sound due to Solar Energy Generating System operations shall not exceed fifty-five (55) dBA for any period of time, when measured from the property line of any adjacent property improved with a dwelling unit at the time of the issuance of the zoning certificate. The level however may be exceeded during short-term events such as utility outages and/or severe windstorms.

11. Electromagnetic Interference. The system shall be operated so that no disruptive electromagnetic interference is caused to off-site telecommunications, surveillance or other similar systems. If it has been demonstrated that a system is causing such disruptive interference, the system owner shall promptly eliminate the disruptive interference or cease operation of the system.

12. Code Compliance. A Solar Energy Generating System and all of its components shall comply with all applicable construction and electrical codes.

13. Utility notification and interconnection. Solar Energy Generating Systems that connect to the electric utility shall comply with applicable Public Service Commission regulations.

14. Public Service Commission. In accordance with the Maryland Annotated Code, Public Utilities Companies, Section 7-207.1, any property owner seeking to construct a Solar Energy Generating System and connect such system to the main power grid with the capability of transporting energy back to their main power company shall apply to the

Public Service Commission (PSC) for approval and provide documentation of such approval to Washington County prior to construction and issuance of a building permit.

15. Violations. It is unlawful for any person to construct, install, or operate a Solar Energy Generating System that is not in compliance with this section or with any condition contained in a building permit issued pursuant to this section.

16. Life of the project and final reclamation. As part of the site plan approval, a description of the decommissioning and final land reclamation plan after anticipated useful life or abandonment or termination of the project shall be required. This will include evidence of an agreement with the property owner that ensures proper final removal of power generating equipment.

B. Design Standards in Airport Zones

For the purpose of this section an Airport Zone shall mean all Euclidean and overlay districts outlined in Article 21 of this Ordinance.

Anyone planning to establish a SEGS within any Airport district should refer to the Federal Aviation Administration (FAA) guidance document FAA-ARP-TR-10-1 – Technical Guidance for Evaluating Selected Solar Technologies on Airports. In addition, the following design standards shall apply to installation of SEGS in any Airport Zone:

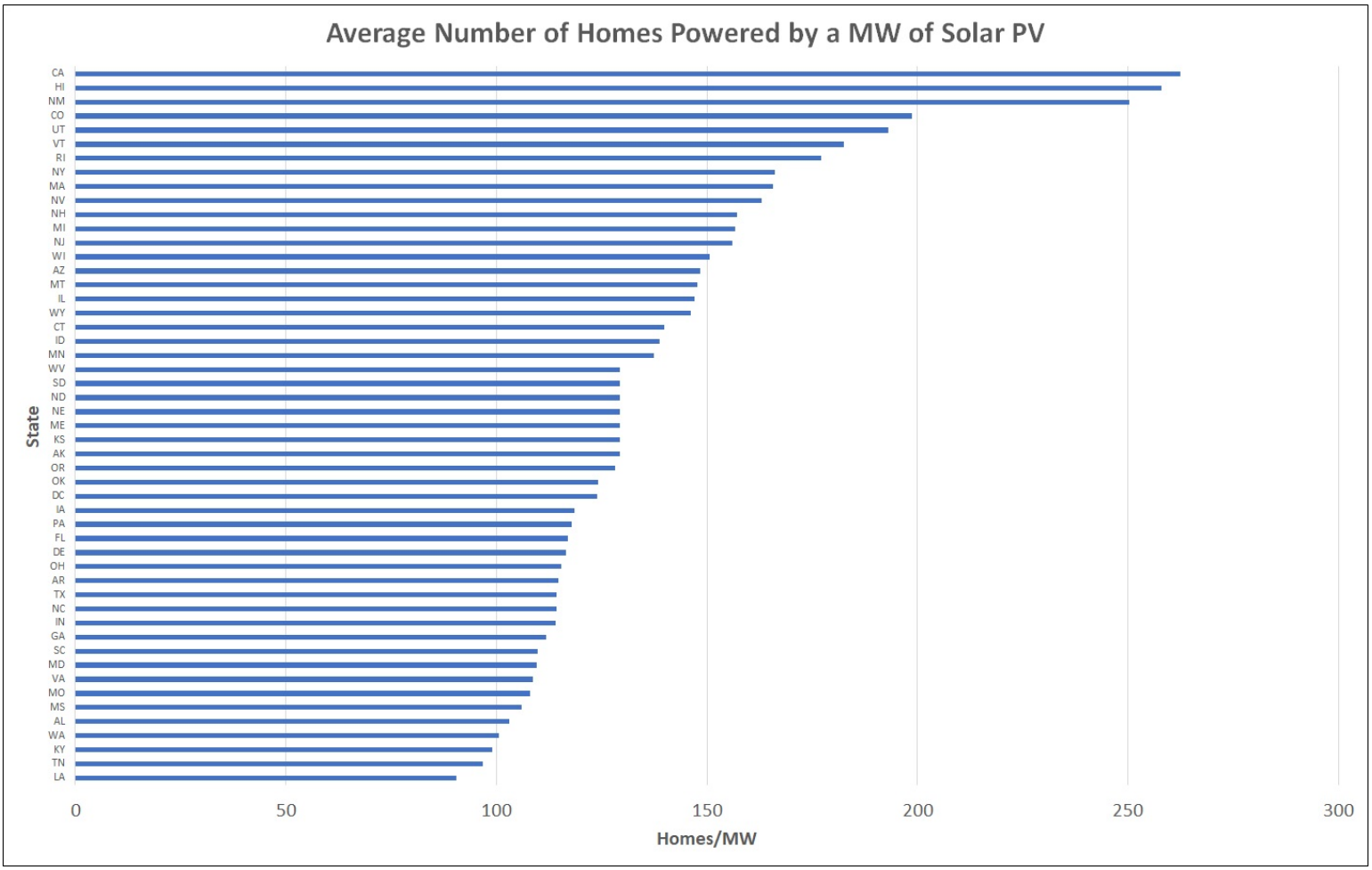
1. Solar collection devices shall be limited to photovoltaic devices only. Concentrated solar power systems are prohibited due to potential reflectivity, electromagnetic interference, and thermal plume hazards.

2. All SEGS projects located within airport zones shall be subject to review by the FAA.

# Analysis of Solar Generating Systems

**General Information:**

- The State of Maryland adopted a renewable energy portfolio that requires 50% of all electricity produced in the State to be from renewable energy sources by 2030. Of the 50%; 14.5% is to be produced from solar.
- Solar photovoltaic generating systems are exempt from Public Service Commission (PSC) permits if they generate less than 2MW. Above 2MW systems require a Certificate of Public Convenience and Necessity (CPCN).
- Recent court case upholds lower courts decision that the PSC has sole authority to approve the location of solar photovoltaic generating systems that require a CPCN. However, the PSC is required to give "due consideration" to local comprehensive plans and zoning regulations as part of their deliberations. The PSC routinely invites the local governing authority to sit with them during public hearings regarding new permits.
- There are currently three (3) counties in the State of Maryland that do not address solar energy generating facilities in their zoning ordinance: Garrett, Prince George's, and Somerset.
- According to the Solar Energy Industries Association (SEIA) the current (2018) national average of homes powered by 1 MW of solar power is 190. MD had a slightly lower average of about 110.




*Source: Solar Energy Industries Association (SEIA) https://www.seia.org/initiatives/whats-megawatt*

## Topics for Discussion:

1) Consumption of prime agricultural land
2) Location and method of connecting to the grid (underground/overhead?)
3) Impacts on environmentally sensitive areas and animal habitats
4) Impacts on historic and cultural resources including viewsheds
5) Decommissioning of facilities (bonded?)
6) Impacts on Forest Conservation
7) Buffers, Landscaping and Fencing
8) Community vs. Utility Scale projects

## What other jurisdictions are doing:

Issue 1: Consumption of prime agricultural land.

- Two counties, Anne Arundel and Frederick, specifically limit the amount of disturbance permitted in areas with prime agricultural soils.

*Anne Arundel County (Bill No. 89-18):*

> "The developer of the solar facility shall, to the degree practicable, avoid disturbing prime agricultural soils, and shall provide an analysis to demonstrate how the developer is avoiding disturbance of prime agricultural soils. The development may not result in more than 50 percent of prime agricultural soils on the site being removed from existing or potential agricultural production." §18-11-156(6)

*Frederick County (Zoning Ordinance §1-19-10.700)*

Frederick County only permits Commercial Solar Facilities in the Agricultural Zone via application for a Floating Zone.

"The applicant shall establish that the project will not be located on prime farmland soils identified in the USDA Soil Survey for Frederick County". §1-19-10.700(C)(4)

- Several counties including Anne Arundel, Baltimore, Caroline, Howard, and Queen Anne's prohibit the location of utility scale solar generating systems on various land preservation and conservation easements.
- Several counties limit or cap the amount of land permitted to be used for generating systems on the site (i.e. 25% of net tract area). Other counties limit the total acreage that can be used (i.e. 20 acres). Baltimore County limits the number of facilities to 10 per district of each County Councilman.

<u>Issue 2: Location and method of connecting to the grid</u>

- Connection to the grid is typically dictated by the transmission and distribution company that currently owns and services the lines.
- Alleghany County requires that interconnections be placed underground.

<u>Issue 3: Impacts on environmentally sensitive areas and animal habitats</u>

- Nearly all Counties specifically limit or prohibit generating systems in environmentally sensitive areas.
- Anne Arundel county requires mitigation for wildlife corridors.

*Anne Arundel County*

"Any solar facility where the fenced area would exceed 15 acres shall provide a wildlife corridor conforming with the provisions of the current Anne Arundel County greenways master plan." §18-11-156(4)

<u>Issue 4: Impacts on historic and cultural resources</u>

- Nearly all counties reference impacts on historic or cultural resources such as historic inventory sites, scenic byways, parks, etc. Some counties go so far as to prohibit generating systems within the viewshed of these resources.

Issue 5: Decommissioning of Facilities

- All of the counties with regulations regarding solar generating facilities require installers/developers to prepare plans for decommissioning/reclamation.
- Some counties require a full reclamation plan with estimated costs associated with the decommissioning of a site.
- A few counties require bonds to be posted prior to construction of the system to ensure facilities are dismantled and reclaimed are decommissioning.

*Anne Arundel County*

"A decommissioning plan shall be submitted to the office of Planning and Zoning for approval. The plans shall include a requirement for a grading permit or standard grading plan and that all on-site equipment associated with the solar facility shall be removed within 12 months of cessation of operations. Decommissioning security in accordance with §17-6-702 of this code and equal to 125% of the decommissioning cost shall be posted prior to commencement of the use." §18-11-156(13)

"The County shall review the amount of the security every five years and may require additional security or reduce the amount of the posted security if it determines, at its sole discretion, that the posted security no longer equals 125% of the decommissioning costs. §18-11-156(14)

"A solar facility is presumed to cease operations if no power is generated by the system for a period of 12 consecutive months. The owner of the solar facility shall have 12 months after cessation of operations to dismantle and remove the solar facility. If the owner fails to dismantle or remove the solar facility as required, the County may complete the removal at the owners expense, and shall retain all or part of the decommissioning security which shall become property of the County." §18-11-156(15)

Issue 6: Impact on Forest Conservation Act

- The question has been brought up if solar generating systems still have to comply with Forest Conservation regulations since the PSC is the ultimate authority in site approval and design. Maryland DNR has strongly encouraged Counties to continue to enforce FCA requirements through the public hearing process with the PSC. Washington County has continued to enforce these requirements.
- A few counties have added a penalty clause to their solar ordinance that any tree cutting would result in a 3 to 1 reforesting mitigation requirement.

*Anne Arundel County*

"The developer shall comply with the provisions of the County Forest Conservation Act…regardless of any state waiver or reduction of state forest conservation requirements for solar energy systems. Mitigation for tree removal shall be at the ratio of 3-to-1. §18-11-156(3)

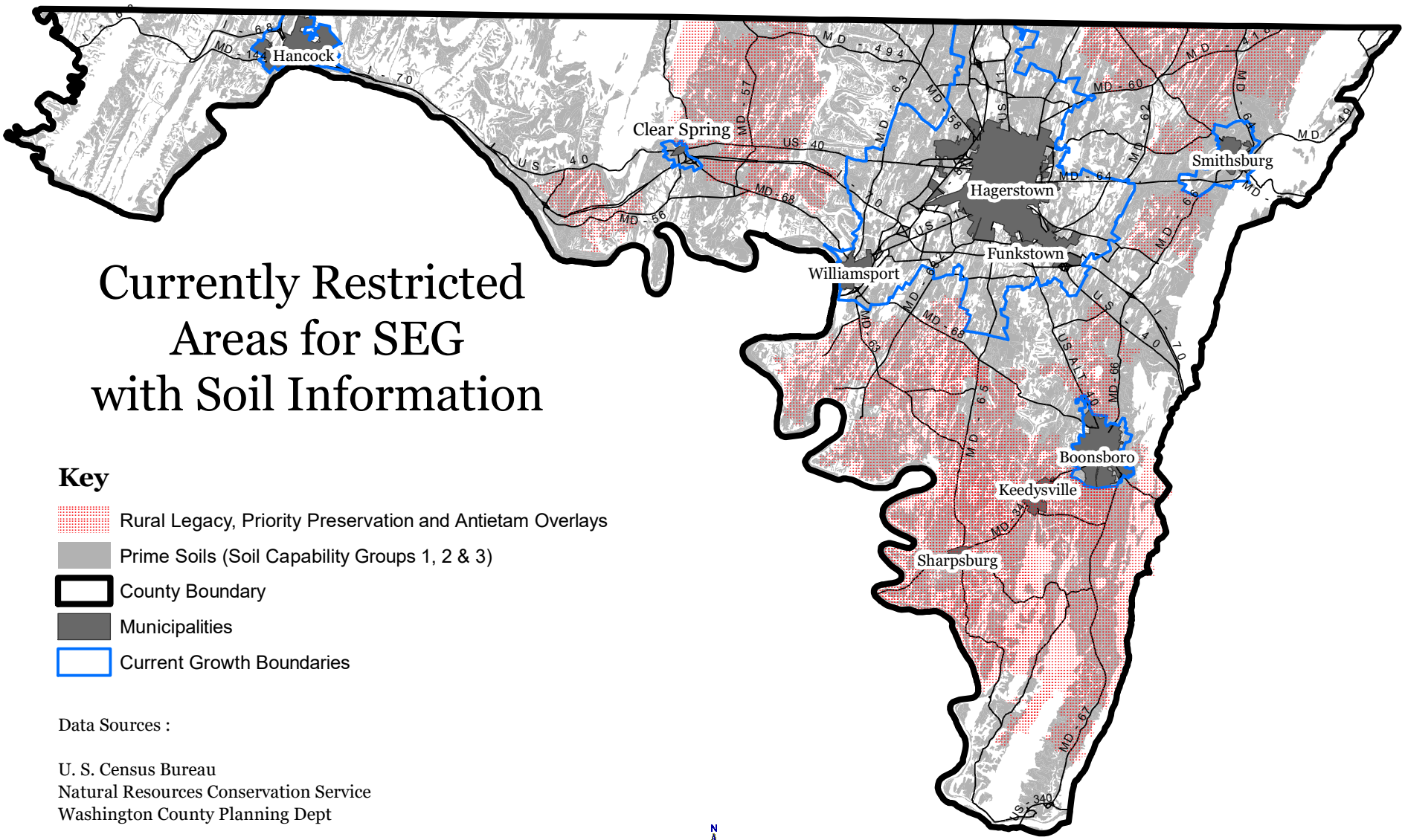
Issue 7: Buffers, Landscaping, and Fencing

- Most counties include requirements for buffering the areas surround solar panels with landscaping and fencing.

Issue 8: Community vs. Utility Scale facilities

- Many counties differentiate between small scale community solar generating facilities and large scale utility facilities. All that have regulations use the 2MW threshold for CPCN as the breaking point between small and large scale facilities.

# Currently Restricted Areas for SEG with Soil Information




## Key

- Rural Legacy, Priority Preservation and Antietam Overlays
- Prime Soils (Soil Capability Groups 1, 2 & 3)
- County Boundary
- Municipalities
- Current Growth Boundaries

Data Sources :

U. S. Census Bureau
Natural Resources Conservation Service
Washington County Planning Dept

N
W E
S

0 1 2 3 4 5 6 7 8 9 10
Miles

Prepared by the
Washington County
Planning Department
Geographic Information System

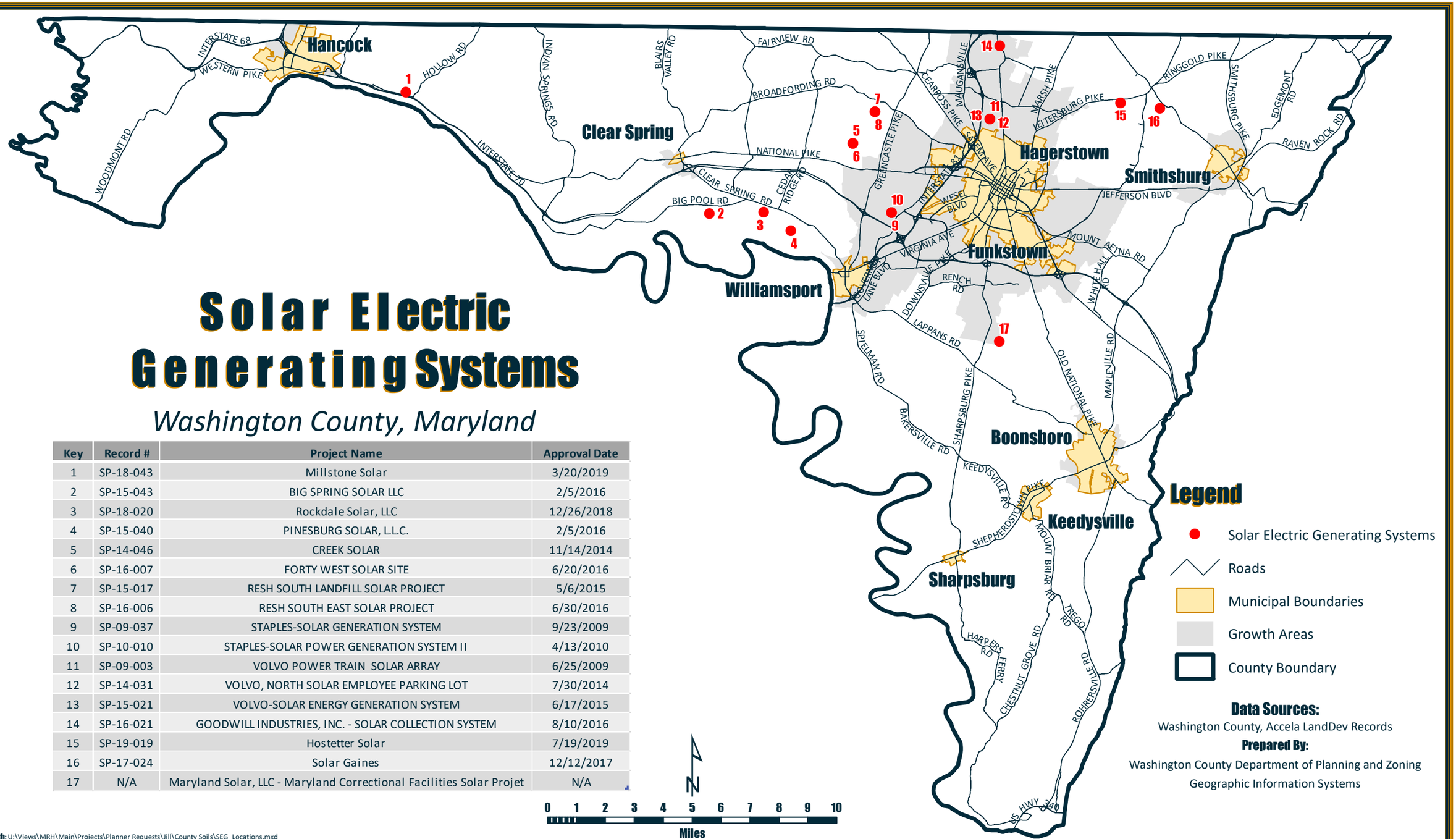
Document Path: U:\Views\MRH\Main\Projects\Planner Requests\Jill\County Soils\restrictedSEG.mxd

# Washington County Maryland

# Solar Electric Generating Systems

*Washington County, Maryland*

| Key | Record # | Project Name | Approval Date |
|---|---|---|---|
| 1 | SP-18-043 | Millstone Solar | 3/20/2019 |
| 2 | SP-15-043 | BIG SPRING SOLAR LLC | 2/5/2016 |
| 3 | SP-18-020 | Rockdale Solar, LLC | 12/26/2018 |
| 4 | SP-15-040 | PINESBURG SOLAR, L.L.C. | 2/5/2016 |
| 5 | SP-14-046 | CREEK SOLAR | 11/14/2014 |
| 6 | SP-16-007 | FORTY WEST SOLAR SITE | 6/20/2016 |
| 7 | SP-15-017 | RESH SOUTH LANDFILL SOLAR PROJECT | 5/6/2015 |
| 8 | SP-16-006 | RESH SOUTH EAST SOLAR PROJECT | 6/30/2016 |
| 9 | SP-09-037 | STAPLES-SOLAR GENERATION SYSTEM | 9/23/2009 |
| 10 | SP-10-010 | STAPLES-SOLAR POWER GENERATION SYSTEM II | 4/13/2010 |
| 11 | SP-09-003 | VOLVO POWER TRAIN SOLAR ARRAY | 6/25/2009 |
| 12 | SP-14-031 | VOLVO, NORTH SOLAR EMPLOYEE PARKING LOT | 7/30/2014 |
| 13 | SP-15-021 | VOLVO-SOLAR ENERGY GENERATION SYSTEM | 6/17/2015 |
| 14 | SP-16-021 | GOODWILL INDUSTRIES, INC. - SOLAR COLLECTION SYSTEM | 8/10/2016 |
| 15 | SP-19-019 | Hostetter Solar | 7/19/2019 |
| 16 | SP-17-024 | Solar Gaines | 12/12/2017 |
| 17 | N/A | Maryland Solar, LLC - Maryland Correctional Facilities Solar Projet | N/A |




## Legend

- Solar Electric Generating Systems
- Roads
- Municipal Boundaries
- Growth Areas
- County Boundary

**Data Sources:**
Washington County, Accela LandDev Records

**Prepared By:**
Washington County Department of Planning and Zoning
Geographic Information Systems

N

0 1 2 3 4 5 6 7 8 9 10

Miles

**Document Path:** U:\Views\MRH\Main\Projects\Planner Requests\Jill\County Soils\SEG_Locations.mxd

# Washington County

# Maryland

# Soil Capabilities

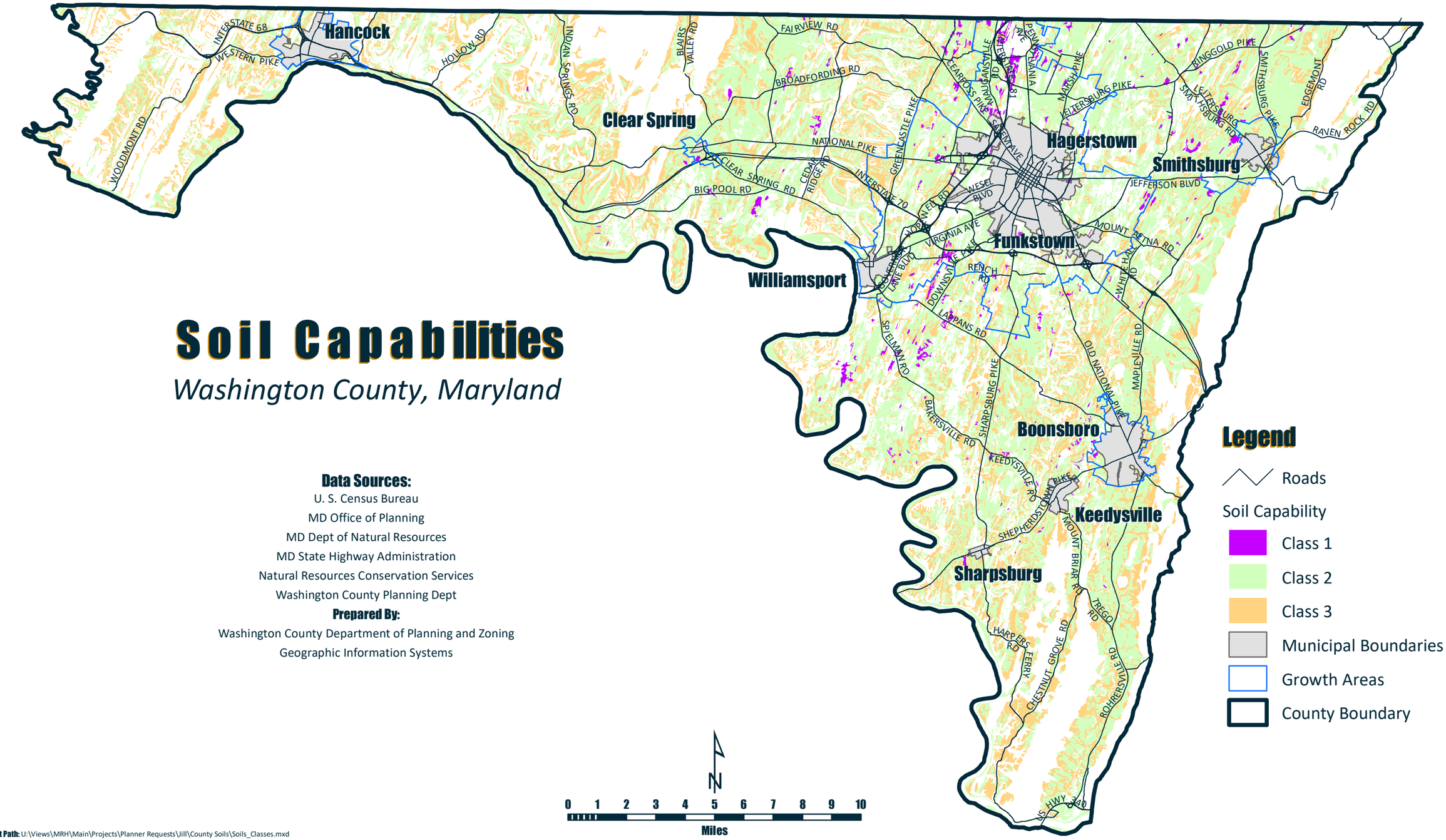
*Washington County, Maryland*

**Data Sources:**

U. S. Census Bureau
MD Office of Planning
MD Dept of Natural Resources
MD State Highway Administration
Natural Resources Conservation Services
Washington County Planning Dept

**Prepared By:**

Washington County Department of Planning and Zoning
Geographic Information Systems




## Legend

- Roads

Soil Capability

- Class 1
- Class 2
- Class 3
- Municipal Boundaries
- Growth Areas
- County Boundary

N

0 1 2 3 4 5 6 7 8 9 10

Miles

**Document Path:** U:\Views\MRH\Main\Projects\Planner Requests\Jill\County Soils\Soils_Classes.mxd